

June 4, 2020

EPA COMMENTS

on the

Final Remedial Investigation Report

Homestake Mining Company Superfund Site

Operable Unit 1: Tailing Seepage Contamination of Groundwater Aquifers

Operable Unit 2: Long-Term Tailings Stabilization, Surface Reclamation, and Site Closure

Dated: April 28, 2020

Specific Comments:

1. Section 6 – Summary and Conclusion, pages 6-2 and 6-7:

Please remove the language noted below that was added to the “Summary and Conclusion” Section and address its contents under the Uncertainty section within the body of the risk assessment. Please point out in the Uncertainty section that the potential decrease in the risk assessment is only for those land areas at the Site that would be transferred to DOE for long-term stewardship. Additionally, please include a figure (map) in the RI Report that depicts radium-226 surface soil concentrations at the risk assessment sample locations within the Homestake Facility soil boundary. This will provide a visual display of the soil area locations with relatively higher concentrations of radium-226. The development of soil PRGs may be necessary during the performance of the FS because the area of the site to be turned over to the DOE, outside of the two tailings impoundments, is unknown at this time.

Section 6.1.1.2 - Soils, page 6-2

“Risk estimates for a DOE legacy worker based on a more realistic exposure scenario would be on the order of 4×10^{-5} , which is within the risk management range. For this reason, soil PRGs have not been proposed in this RI even though risk estimates are 8×10^{-4} .”

Section 6.1.3.1 – Human Health Risk Assessment for Homestake Facility, page 6-7:

“Risk estimates above 1×10^{-4} for the composite worker within the Homestake facility were obtained by modeling this receptor with typical default exposure parameters of 8 hours/day, 5 days per week, for 25 years. However, this is overly conservative because the Homestake Facility will be turned over to DOE as a legacy site. During legacy management, there will be workers engaged in semi-annual long-term groundwater monitoring and annual inspections. There would not be workers expected to be exposed to the UCL95 EPC for all ROPCs combined on a daily basis for the entire workday for a period of 25 years. A more realistic but still conservative, exposure scenario would be a worker exposed for 14 days per year for 25 years. For this reason, risk estimates for the composite worker within the Homestake Facility are considered very conservative and biased high.”

2. Updated Groundwater Elevation Maps (RI Figures 34, 35, 39 and 40):

The contours on the updated groundwater elevation maps for the Upper Chinle aquifer (RI Figures 34 and 35), provided to EPA via email dated May 22, 2020, do not accurately honor the groundwater elevations depicted on the maps. EPA recognizes the difficulty in trying to map the potentiometric surface of the Upper Chinle aquifer when the ongoing water injection and pumping affect the hydraulic flow regime. EPA will discuss with Homestake whether further revision is necessary on the teleconference scheduled for June 5, 2020.